Gulf of Mexico Harmful Algal Bloom Bulletin

14 February 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

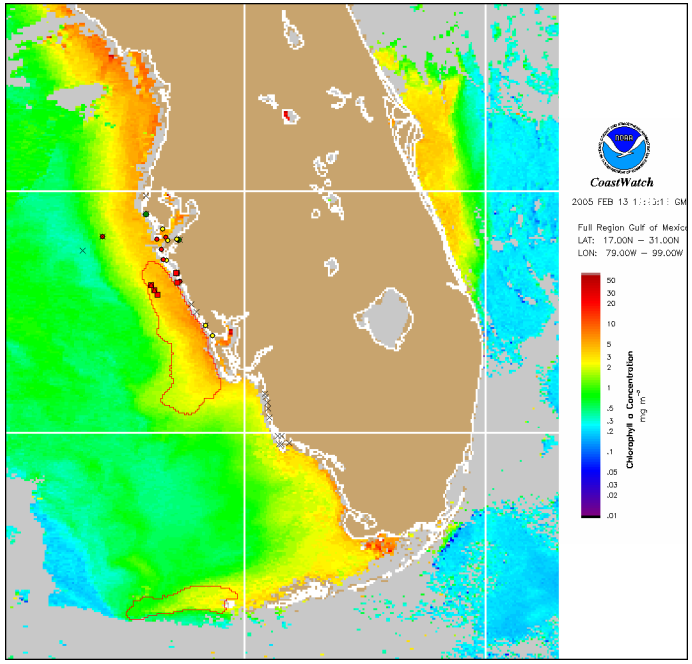
Last bulletin: February 10, 2005

Conditions: A harmful algal bloom has been identified off southern Manatee, Sarasota, Charlotte, and northern Lee counties. Patchy moderate to high impacts are expected through Wednesday.

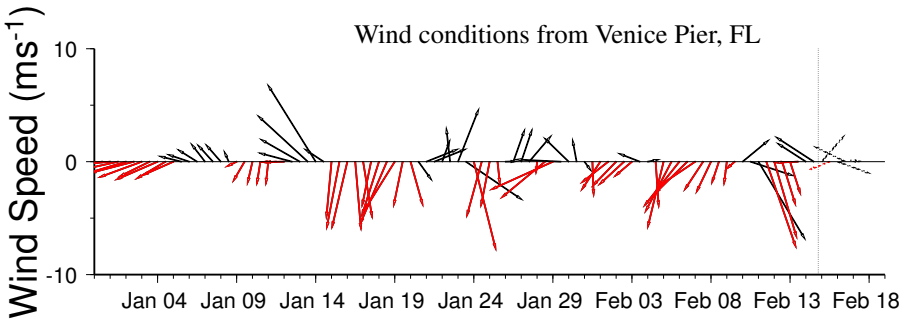
A harmful algal bloom has also been reported north and south of the lower Keys at Seven Mile Bridge. Low impacts are possible at Bahia Honda Beach.

Analysis: The *K. brevis* bloom persists between Tampa Bay and Charlotte Harbor, and has continued to move south along the shoreline. The bloom is onshore from Bradenton to Captiva, from 27°24'N to 26°17'N along its North/South axis, with the southwestern edge extending south to 26°8'N and west to 82°44'W. Chlorophyll concentrations are highest along the coast, at about 6-9μg/L from Venice to Boca Grande. Samples last week confirmed high concentrations of *K. brevis* at Sarasota, with medium concentrations to the north and south from the mouth of Tampa Bay to Venice. Reports of fish kills, respiratory irritation, and discolored water have been received from Siesta Key to Venice and are likely to continue through the week. Southerly winds through tomorrow will slow southern movement and promote impacts onshore. Seabreeze makes impacts at the beach likely tomorrow and Wednesday afternoons.

The bloom located north of the Keys continues to dissipate. Some has moved through Moser Channel and lies in Hawk Channel, although the extent is difficult to determine. The northern extent remains north of the lower Keys and northeast of Key West. Very low levels of *K. brevis* were identified offshore last week from the Content Keys to offshore north of Key West, and was present at the Marquesas, but was not present closer to shore in the lower Keys. Chlorophyll levels are about 3-4μg/L from Key West to Marathon and down through Moser Channel, and 2-3μg/L from Key West to the Marquesas. Fish kills have been reported north of the lower keys and northeast of Key West. Southeast winds through Wednesday will slow movement through the Channel and keep bloom offshore of the north coast of the Keys. -Stolz and Bronder

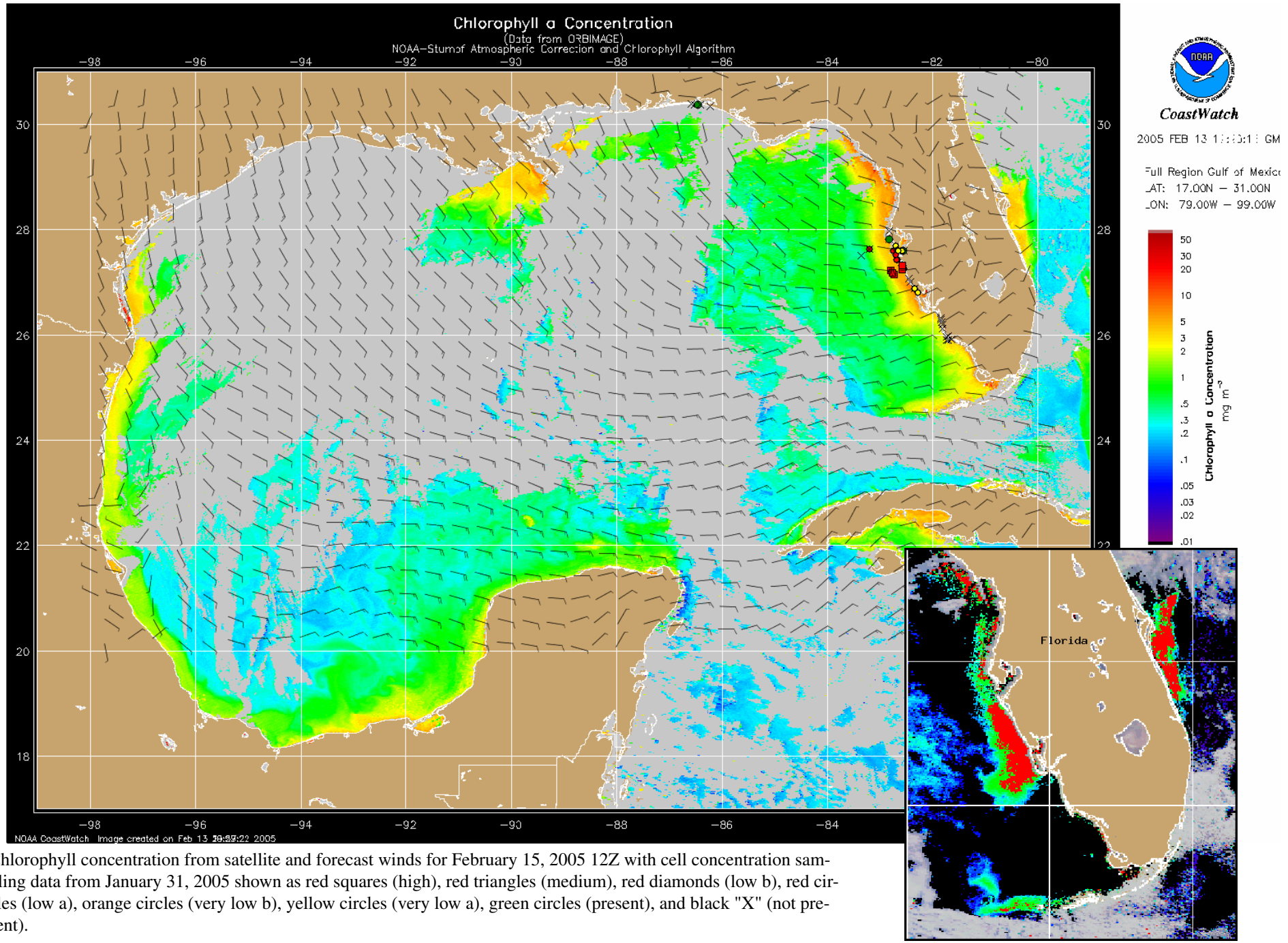


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 31, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Venice: Southerly winds today at 10-15 knots (5-8m/s), becoming southwesterly tonight and southeasterly Tuesday. Light and variable winds Tuesday night and Wednesday becoming northwesterly Wednesday night and northerly Thursday. Keys: Southeast winds at 10-15 knots (5-8 m/s) through Wednesday, northwest to north on Thursday.



Chlorophyll concentration from satellite and forecast winds for February 15, 2005 12Z with cell concentration sampling data from January 31, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)

Wind conditions from Sand Key, FL